



## Summary of Studies Supporting USDA Product Licensure

Establishment Name	Zoetis Inc.
USDA Vet Biologics Establishment Number	190
Product Code	18M1.23
True Name	Parvovirus Vaccine, Modified Live Virus
Tradename(s) / Distributor or Subsidiary (if different from manufacturer)	Vanguard CPV - No distributor specified Vanguard Canine Parvo - No distributor specified Vanguard Plus CPV - No distributor specified Vanguard Plus CPV - Zoetis (Shanghai) Animal Health Vanguard Plus CPV - Zoetis Argentina Vanguard Plus CPV - Zoetis Colombia S.A.S. Vanguard Plus CPV - Zoetis Enterprise Management (Shanghai) Co., Ltd. Vanguard Plus CPV - Zoetis Japan Inc. Vanguard Plus CPV - Zoetis Korea Vanguard Plus CPV - Zoetis Mexico Vanguard Plus CPV - Zoetis Panama
Date of Compilation Summary	April 23, 2021

**Disclaimer: Do not use the following studies to compare one product to another. Slight differences in study design and execution can render the comparisons meaningless.**

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	Canine Parvovirus (CPV)
<b>Study Purpose</b>	Demonstrate effectiveness against CPV
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	July 28, 1995

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	Canine parvovirus (CPV)
<b>Study Purpose</b>	To demonstrate efficacy against CPV Type 2c
<b>Product Administration</b>	Two doses, administered 3 weeks apart
<b>Study Animals</b>	30 beagles 6-8 weeks of age were randomly divided into either controls (T01, n=10) or vaccinates (T02, n=20)
<b>Challenge Description</b>	All animals were challenged 5 weeks after the second vaccination (study day 56) with CPV-2c orally and intranasally
<b>Interval observed after challenge</b>	Clinical observations and rectal body temperatures were observed twice daily for 2 weeks following challenge.
<b>Results</b>	<p>Requirements per 9 CFR 113.317 were met.</p> <p>All dogs were negative for canine parvovirus serum neutralizing antibody and for fecal shedding of virus on Day 0 for the study. Control dogs remained negative through the day of challenge. All control dogs (10 of 10) met at least 3 criteria of parvovirus infection.* The vaccine was efficacious with no vaccinated dogs (0 of 20) having more than 1 criteria of infection, nor any virus shedding.</p> <p>*Criteria for CPV infection include: temperature <math>\geq 103.4</math> °F; lymphopenia of <math>\geq 50\%</math> of prechallenge normal; clinical signs such as diarrhea, mucus in feces, or blood in feces; and viral hemagglutinins at a level of <math>\geq 1:64</math> in a 1:5 dilution of feces or a test of equal sensitivity.</p> <p>Raw data is available on the following pages.</p>
<b>USDA Approval Date</b>	August 22, 2011

**Table 1. Individual animal listing (Infection)**

Treatment	Animal	Fever	Lymphopenia	Clinical sign	Virus	Infected <sup>1</sup>
T01	1030703	YES	YES	YES	YES	YES
	1030707	YES	YES	YES	YES	YES
	1030802	NO	YES	YES	YES	YES
	1030905	YES	YES	YES	YES	YES
	1031002	NO	YES	YES	YES	YES
	1031004	NO	YES	YES	YES	YES
	1031101	YES	YES	YES	YES	YES
	1031104	YES	YES	YES	YES	YES
	1060903	NO	YES	YES	YES	YES
	1060904	YES	YES	YES	YES	YES

<sup>1</sup>Had at least 3 out of the 4 criteria for infection

Treatment	Animal	Fever	Lymphopenia	Clinical sign	Virus	Infected <sup>2</sup>
T02	1030701	NO	NO	NO	NO	NO
	1030702	NO	NO	NO	NO	NO
	1030704	NO	NO	NO	NO	NO
	1030705	NO	NO	NO	NO	NO
	1030706	NO	NO	NO	NO	NO
	1030801	NO	NO	YES	NO	NO
	1030901	NO	NO	YES	NO	NO
	1030902	NO	NO	NO	NO	NO
	1030904	NO	NO	NO	NO	NO
	1030906	NO	NO	YES	NO	NO
	1031001	NO	NO	NO	NO	NO
	1031003	NO	YES	NO	NO	NO
	1031005	NO	NO	NO	NO	NO
	1031006	NO	NO	NO	NO	NO
	1031102	NO	NO	NO	NO	NO
	1031103	NO	NO	YES	NO	NO
	1031105	NO	NO	NO	NO	NO
	1060901	NO	NO	NO	NO	NO
	1060902	NO	NO	NO	NO	NO
	1060905	NO	NO	NO	NO	NO

<sup>2</sup>Greater than one (>1) out of four criteria of infection

**Table 2.1. Rectal temperature first week post-challenge (study days 56-62.1)**

Trtmt***	Animal	56	56.1**	57	57.1**	58	58.1**	59	59.1**	60	60.1**	61	61.1**	62	62.1**
T01	1030703	101.2	101.9	101.1	101.6	100.9	100.9	100.8	101.4	101.8	103.9	101.8			
T01	1030707	101.7	100.7	101.8	101.0	101.3	101.4	101.7	102.3	102.0	103.6	102.8	101.5	102.0	
T01	1030802	101.6	101.4	101.6	101.3	101.1	101.2	101.2	101.5	101.2	101.6	102.0	101.7	101.0	
T01	1030905	101.6	100.8	101.6	100.1	101.4	101.7	102.0	101.5	102.1	103.6	101.9	101.5	101.9	
T01	1031002	101.7	101.4	100.7	101.2	101.0	102.1	101.1	101.6	101.4	101.6	102.6			
T01	1031004	101.2	100.6	100.8	100.3	100.9	101.5	101.0	101.7	101.5	102.0	101.7			
T01	1031101	101.2	100.8	100.8	101.2	101.1	101.3	101.2	102.0	102.3	103.7	102.6	101.9	102.8	
T01	1031104	102.9	101.4	101.7	101.0	101.4	101.8	102.0	103.2	104.3	104.3	102.2	103.0	101.7	
T01	1060903	101.2	100.6	101.6	100.9	101.5	101.0	101.3	100.7	102.7	101.9	102.4			
T01	1060904	102.2	101.1	102.2	101.8	102.0	102.1	102.0	102.2	103.0	103.5	102.6			
T02	1030701	101.0	101.1	101.3	101.2	101.2	101.8	101.1	100.3	101.3	101.3	100.9	101.6	101.5	101.3
T02	1030702	101.1	100.8	101.4	100.6	101.3	101.5	101.0	101.4	100.8	101.6	101.0	101.2	101.2	101.8
T02	1030704	100.8	100.5	100.8	100.9	100.6	101.0	100.6	101.2	101.0	100.8	100.9	101.1	101.2	100.7
T02	1030705	101.4	100.5	102.1	101.5	101.6	101.5	101.5	101.8	101.4	102.1	101.3	101.3	101.8	101.7
T02	1030706	101.2	100.9	101.4	101.1	101.1	100.9	101.1	101.4	101.3	101.0	101.3	101.1	101.7	101.1
T02	1030801	101.1	100.6	101.8	101.3	101.3	101.4	101.0	100.6	101.2	101.1	101.8	101.1	101.6	101.3
T02	1030901	101.5	101.6	101.7	101.2	101.9	101.5	101.6	101.9	101.6	101.7	101.7	101.2	101.8	101.4
T02	1030902	101.0	101.0	101.4	101.2	101.3	101.3	101.3	101.3	100.8	101.1	100.4	101.4	101.3	101.8
T02	1030904	100.9	101.3	102.1	101.2	101.7	101.4	102.2	102.1	101.9	102.2	101.6	101.7	102.1	101.9
T02	1030906	101.1	100.9	101.4	100.9	101.3	101.5	101.2	101.4	100.9	101.2	101.2	101.5	101.4	101.4
T02	1031001	101.1	101.0	100.9	101.4	101.6	101.3	101.4	101.9	100.8	101.2	101.6	101.3	101.9	101.1
T02	1031003	101.0	100.9	101.7	101.3	101.3	102.6	101.7	101.6	101.3	101.2	102.1	101.7	101.7	101.5
T02	1031005	101.1	100.7	101.2	101.5	101.3	102.1	101.3	101.7	101.6	101.7	101.4	101.6	101.5	101.5
T02	1031006	101.4	100.5	101.2	101.5	101.0	101.6	101.2	100.9	101.2	101.4	101.5	101.7	101.5	
T02	1031102	100.3	100.7	100.9	101.2	100.8	100.5	100.8	100.8	100.2	101.2	100.6	100.7	100.2	101.1
T02	1031103	101.0	100.3	101.1	100.9	101.9		101.2	101.7	101.1	101.9	101.2	101.4	101.1	101.1
T02	1031105	101.3	100.8	101.1	100.8	101.3	101.3	101.3	100.8	101.1	101.5	101.2	101.3	101.6	101.2
T02	1060901	100.9	100.9	101.2	101.2	101.7	101.5	102.0	101.2	102.1	101.3	102.1	101.9	102.1	101.9
T02	1060902	101.4	101.2	101.8	101.0	101.9	101.1	101.6	100.8	101.9	101.8	101.6	101.4	102.0	101.4
T02	1060905	100.5	100.9	101.3	100.7	101.0	101.4	101.0	101.4	101.1	101.2	101.0	100.9	101.8	101.5

\* Highlighting indicates animal(s) with rectal temperature ( $\geq 103.4^{\circ}\text{F}$ ); Fever. \*\* PM \*\*\*Treatment; Animals in treatment group T01 were euthanized on study D61 [(n=5) 5 days post challenge] and study D62 [(n=5) 6 days post challenge] as a result of clinical signs associated with challenge.

**Table 2.2. Rectal temperature second week post-challenge (study days 63-70)**

Trtmt*	Animal	63	63.1**	64	64.1**	65	65.1**	66	66.1**	67	67.1**	68	68.1**	69	69.1**	70
T01***	1030703															
T01	1030707															
T01	1030802															
T01	1030905															
T01	1031002															
T01	1031004															
T01	1031101															
T01	1031104															
T01	1060903															
T01	1060904															
T02	1030701	101.2	100.8	101.7	101.0	101.2	101.3	101.6	100.9	101.2	101.1	101.7	101.4	101.2	101.1	101.8
T02	1030702	101.0	101.2	101.2	101.2	101.1	100.7	101.1	101.2	101.1	101.8	100.9	101.2	100.7	100.3	101.6
T02	1030704	100.6	100.7	101.1	100.5	101.0	100.3	101.3	100.6	101.2	100.8	100.8	100.9	101.3	100.7	101.1
T02	1030705	101.9	101.5	102.0	101.5	101.7	101.4	101.6	101.3	101.4	101.2	101.6	101.7	101.6	101.8	101.8
T02	1030706	101.3	101.2	101.1	100.9	101.3	100.9	101.6	101.1	101.5	101.5	101.4	100.9	101.3	101.4	101.6
T02	1030801	101.5	100.7	101.8	101.8	101.3	100.9	101.6	101.3	101.3	101.0	101.5	101.2	101.6	101.0	101.9
T02	1030901	102.0	101.0	101.9	100.8	101.9	100.8	101.7	101.0	101.5	101.3	101.4	101.3	101.6	101.2	101.4
T02	1030902	101.6	101.0	101.4	101.3	101.4	101.2	101.4	101.2	101.3	101.3	100.9	101.4	101.3	101.3	101.1
T02	1030904	102.9	101.5	102.9	102.2	102.6	101.6	102.3	101.8	102.3	101.8	102.4	102.4	102.4	101.7	102.1
T02	1030906	101.7	100.8	101.3	101.4	101.3	101.1	101.2	101.1	101.4	100.9	101.2	100.7	101.1	100.9	101.1
T02	1031001	100.9	100.6	101.1	101.0	101.0	100.5	101.1	100.9	101.1	100.7	100.5	101.4	101.0	100.7	101.5
T02	1031003	101.3	101.4	101.6	100.4	101.8	101.1	101.6	101.4	101.1	101.3	101.8	100.8	101.6	101.2	101.1
T02	1031005	101.7	101.1	101.4	100.8	101.5	100.8	101.6	101.5	101.5	101.6	101.4	101.4	101.6	101.3	101.5
T02	1031006	101.6	101.5	101.5	101.3	101.3	101.1	101.6	101.2	101.3	101.0	101.4	101.2	101.5	101.2	101.1
T02	1031102	100.9	101.3	100.7	100.9	100.7	100.6	100.5	100.5	101.0	100.8	100.7	100.7	100.4	100.8	100.5
T02	1031103	101.5	100.9	101.2	100.7	101.4	101.1	101.2	101.1	101.6	101.0	101.2	101.4	101.0	100.6	101.6
T02	1031105	101.4	101.2	101.6	101.2	101.6	101.2	101.5	101.4	101.3	101.2	101.7	101.5	101.2	100.4	102.1
T02	1060901	101.6	100.8	101.8	101.4	101.7	101.2	101.9	101.7	101.8	101.8	101.1	100.5	101.6	101.2	101.2
T02	1060902	101.8	100.6	101.7	101.2	101.8	101.4	101.7	101.0	101.9	100.6	101.8	101.4	101.6	101.7	101.9
T02	1060905	101.1	100.3	101.2	100.8	101.1	101.0	101.6	100.7	101.6	101.1	101.6	101.0	101.0	100.8	100.4

\*Treatment \*\* PM \*\*\*Animals in treatment group T01 were euthanized on study D61 [(n=5) 5 days post challenge] and study D62 [(n=5) 6 days post challenge] as a result of clinical signs associated with challenge.

**Table 3. Summary of lymphocyte absolute values (10<sup>3</sup>/UL) study days 54 to 69 (D54-69)**

Animal	Trt***	D54	D55	D56	D57	D58	D59	D60	D61	D62	D63	D64	D65	D66	D67	D68	D69
1030703	T01	6.08	5.90	4.65	4.90	4.08	4.17	0.87	0.79								
1030707	T01	4.82	5.43	5.31	3.75	5.50	4.25	1.40	1.11	1.09							
1030802	T01	6.83	5.67	5.75	5.69	5.03	5.56	1.93	1.22	1.97							
1030905	T01	3.17	3.48	3.32	2.93	3.47	3.32	0.94	0.77	1.14							
1031002	T01	6.79	6.51	5.23	6.16	5.22	5.42	1.60	0.75								
1031004	T01	4.36	3.94	3.27	2.83	3.15	2.17	0.66	0.90								
1031101	T01	4.91	4.00	3.07	3.44	3.60	1.87	0.81	1.23	1.27							
1031104	T01	4.66	4.26	3.08	4.47	3.49	1.93	0.38	1.36	2.00							
1060903	T01	4.62	4.84	3.73	3.95	3.71	2.68	1.27	0.79								
1060904	T01	3.47	4.08	3.40	3.09	3.46	2.65	1.72	1.06								
1030701	T02	4.18	4.02	3.50	3.91	3.29	3.27	3.13	3.01	3.55	3.43	4.10	4.01	3.43	3.89	3.86	3.50
1030702	T02	6.13	6.41	6.05	4.72	4.77	5.78	5.46	4.19	5.83	5.62	5.75	6.58	7.21	6.24	5.22	6.65
1030704	T02	4.12	5.32	5.47	4.80	5.47	6.15	6.89	6.11	6.46	6.86	6.2	5.44	5.39	6.00	5.31	5.23
1030705	T02	7.26	6.58	5.89	5.06	6.10	5.13	4.84	4.99	5.30	6.08	5.24	5.57	6.13	5.54	5.19	5.95
1030706	T02	4.40	4.30	3.98	3.71	4.79	4.19	3.98	3.82	3.66	4.50	3.52	3.35	4.14	3.19	4.14	3.53
1030801	T02	4.93	4.78	3.25	4.08	4.2	4.44	4.29	4.30	3.71	3.75	4.12	3.59	4.02	4.40	3.87	3.69
1030901	T02	3.54	4.63	3.04	5.52	3.37	3.65	3.29	3.74	3.75	3.64	3.70	3.6	3.73	4.01	3.78	3.90
1030902	T02	4.89	4.00	3.47	3.44	3.65	3.29	3.67	3.88	3.52	4.54	3.93	3.67	3.67	4.08	3.83	3.77
1030904	T02	4.64	5.85	5.31	3.94	4.94	5.41	4.78	5.01	4.74	4.82	5.21	4.88	4.37	4.94	6.01	5.64
1030906	T02	3.23	2.94	2.93	3.00	3.11	3.04	2.75	2.50	2.56	2.81	2.56	3.01	2.55	2.78	2.88	2.60
1031001	T02	4.40	4.82	3.67	3.48	3.91	4.40	4.20	3.83	3.83	4.12	5.00	3.62	4.26	4.49	4.22	3.84
1031003	T02	4.31	4.27	2.99	3.10	3.17	3.02	2.65	3.16	3.53	0.69	3.57	3.44	3.69	4.00	3.46	3.65
1031005	T02	3.71	3.80	2.89	2.73	2.57	2.67	2.89	2.69	2.96	3.01	3.50	3.49	3.17	3.70	3.65	3.26
1031006	T02	5.54	4.86	3.26	3.29	3.71	3.68	3.30	3.57	3.59	4.04	4.01	3.43	3.60	4.17	4.08	3.49
1031102	T02	3.67	3.83	3.73	2.98	3.14	2.59	3.20	2.94	2.68	3.41	3.35	3.36	2.74	4.18	3.68	3.63
1031103	T02	4.12	4.88	4.33	4.36	3.39	3.16	3.77	3.72	3.21	4.08	3.16	4.27	4.21	4.49	4.29	4.66
1031105	T02	3.80	4.28	3.05	3.59	3.72	3.32	3.81	3.48	3.21	4.64	4.30	3.92	3.71	4.12	4.27	3.84
1060901	T02	5.83	5.28	4.53	4.74	4.42	4.66	4.19	4.73	4.18	4.98	4.47	4.24	5.07	5.25	4.81	4.61
1060902	T02	3.35	3.45	3.23	3.59	3.66	3.48	3.63	3.53	3.28	4.18	3.61	3.71	3.88	3.59	3.70	3.57
1060905	T02	3.58	3.28	2.45	2.43	2.68	2.82	2.69	2.36	2.54	2.96	2.81	2.63	2.74	2.87	3.02	2.61

\* Highlighting indicates animal(s) with lymphopenia; reduction in lymphocytes  $\geq$  50 percent of pre-challenge normal (average of the three pre-challenge values).  
 \*\*Normal range = 1.3 to 4.1 (10<sup>3</sup> / uL); Advia 120. \*\*\*Treatment group; Animals in treatment group T01 were euthanized on study D61 [(n=5) 5 days post challenge] and study D62 [(n=5) 6 days post challenge] as a result of clinical signs associated with challenge.

**Table 4. Summary of white blood cell absolute values (10<sup>3</sup>/UL) study days 54 to 70 (D54-70)**

Animal	Trt**	D54	D55	D56	D57	D58	D59	D60	D61	D62	D63	D64	D65	D66	D67	D68	D69
1030703	T01	13.46	13.10	11.36	10.89	10.85	11.06	8.73	4.58								
1030707	T01	11.78	12.27	11.33	8.54	11.90	10.67	10.92	8.36	3.57							
1030802	T01	13.87	11.93	11.65	12.03	11.63	11.46	10.24	11.04	6.80							
1030905	T01	6.91	7.05	7.18	6.92	9.08	7.56	8.35	5.02	5.98							
1031002	T01	14.84	21.06	12.54	17.27	14.72	14.47	15.38	12.06								
1031004	T01	11.03	9.70	10.51	8.29	9.46	9.97	11.29	12.01								
1031101	T01	11.63	9.60	9.60	10.88	9.44	7.65	8.01	4.03	5.92							
1031104	T01	9.01	8.59	6.56	9.58	8.26	8.72	9.33	3.01	5.15							
1060903	T01	10.31	10.32	8.12	8.56	8.68	7.81	10.18	13.09								
1060904	T01	10.32	11.98	8.96	9.08	10.10	8.74	13.34	13.20								
1030701	T02	9.82	9.44	7.62	8.21	7.76	9.05	8.14	7.35	8.03	8.57	9.79	9.04	8.51	9.34	9.24	8.48
1030702	T02	13.10	13.00	14.69	13.84	13.18	13.19	13.72	11.61	14.46	14.09	13.28	13.80	15.19	15.00	14.70	15.60
1030704	T02	20.84	13.6	9.56	12.31	11.34	14.22	14.92	14.11	15.93	18.73	16.08	13.70	14.61	15.10	12.60	11.50
1030705	T02	14.03	12.39	11.63	12.34	11.90	10.88	10.34	9.86	11.83	12.60	11.79	11.00	17.89	13.9	12.40	12.50
1030706	T02	10.01	10.42	9.17	9.11	12.34	9.53	8.89	8.61	8.29	9.94	9.36	8.56	10.43	9.54	10.40	8.77
1030801	T02	10.15	10.55	8.35	9.04	9.04	8.70	9.21	9.10	8.88	8.27	9.05	8.23	9.85	9.55	8.57	8.50
1030901	T02	8.04	11.35	7.84	9.12	8.39	8.52	7.94	8.00	9.39	8.22	8.37	7.52	7.89	9.11	9.04	9.02
1030902	T02	9.99	19.34	12.33	10.71	10.01	10.63	11.26	10.85	11.07	12.25	10.52	11.00	10.72	14.40	13.2	10.70
1030904	T02	11.96	14.59	14.81	12.33	13.44	14.78	12.32	12.41	12.28	12.44	14.40	12.6	12.71	14.10	15.00	13.90
1030906	T02	9.19	9.23	8.25	8.40	8.61	7.36	7.46	7.25	7.06	8.01	7.39	8.24	7.60	7.95	8.05	7.57
1031001	T02	10.57	10.70	8.85	7.71	8.45	9.04	9.16	8.55	8.92	8.61	10.98	8.02	9.47	9.83	10.10	9.64
1031003	T02	13.32	10.61	9.73	9.31	10.55	9.88	9.85	9.56	10.88	10.43	11.43	9.67	11.26	13.00	11.90	11.70
1031005	T02	8.10	8.53	7.02	7.60	7.85	6.48	6.88	6.46	7.77	8.09	8.47	8.18	7.81	8.51	9.00	8.64
1031006	T02	14.14	10.87	7.90	10.91	10.79	10.37	8.48	9.08	10.23	10.57	11.03	8.04	9.27	10.80	10.80	8.75
1031102	T02	8.31	8.53	8.43	11.96	9.83	6.72	7.40	6.51	6.85	8.42	7.63	7.82	6.36	9.94	8.76	8.18
1031103	T02	10.17	13.17	9.59	10.93	8.57	7.76	8.64	8.89	7.84	9.24	8.27	8.84	9.42	11.20	10.2	11.90
1031105	T02	8.63	9.21	7.62	8.17	8.02	7.23	8.49	7.92	7.35	9.53	9.27	8.77	8.31	9.16	9.40	10.20
1060901	T02	12.40	11.77	10.68	11.68	11.24	10.45	9.65	10.31	9.56	10.94	10.11	9.02	10.72	12.10	11.5	10.90
1060902	T02	9.61	10.78	9.64	9.75	9.74	8.62	9.57	9.70	8.89	9.95	10.15	9.29	10.21	10.10	11.00	9.90
1060905	T02	9.97	9.04	7.60	7.87	8.13	8.41	9.17	7.61	7.34	8.88	8.48	7.93	8.38	9.04	8.97	8.11

\*Normal range = 5.2 to 13.9 (10<sup>3</sup> / uL); Advia 120. \*\*Treatment group; Animals in treatment group T01 were euthanized on study D61 [(n=5) 5 days post challenge] and study D62 [(n=5) 6 days post challenge] as a result of clinical signs associated with challenge.

<b>Table 5. Summary of clinical signs by treatment Study Day 56* to Day 70</b>														
	Diarrhea		Vomit		Dehydration		Mucus in stool		Blood in stool		Anorexia		Lethargy	
	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Treatment	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
T01 (Control)	10	100	9	90	2	20	9	90	7	70	8	80	3	30
T02 (CPV-2c)	4	20	2	10	0	0	2	10	0	0	0	0	0	0

\*Day of challenge

**Table 6. Summary of virus isolation results by treatment group and Study Day**

		Virus Isolation*				Total
		Negative		Positive		No. of Observations
		No. of Observations	%	No. of Observations	%	
Treatment	DOS	10	100	0	0.0	10
T01**	56	9	90	1	0.0	10
	58	10	100	0	0.0	10
	59	7	70	3	10	10
	60	0	0	10	90	10
	61	0	0	10	100	10
	62	0	0	5	100	5
	63	0	0	0	0	0
	64	0	0	0	0	0
	65	0	0	0	0	0
	66	0	0	0	0	0
	67	0	0	0	0	0
	68	0	0	0	0	0
	69	0	0	0	0	0
	70	0	0	0	0	0
T02	56	20	100	0	0	20
	57	20	100	0	0	20
	58	20	100	0	0	20
	59	20	100	0	0	20
	60	20	100	0	0	20
	61	20	100	0	0	20
	62	20	100	0	0	20
	63	20	100	0	0	20
	64	20	100	0	0	20
	65	20	100	0	0	20
	66	20	100	0	0	20
	67	20	100	0	0	20
	68	20	100	0	0	20
	69	20	100	0	0	20
70	20	100	0	0	20	

\*Negative ( $\leq 10^{3.0}$  TCID<sub>50</sub> / gram), positive ( $\geq 10^{3.3}$  TCID<sub>50</sub> / gram).

\*\*Animals in treatment group T01 were euthanized on study D61 [(n=5) 5 days post challenge] and study D62 [(n=5) 6 days post challenge] as a result of clinical signs associated with challenge.

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	Canine Parvovirus (CPV)
<b>Study Purpose</b>	Demonstrate effectiveness against CPV in the face of low levels of maternal antibody.
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	July 03, 1995

<b>Study Type</b>	Safety
<b>Pertaining to</b>	ALL
<b>Study Purpose</b>	To demonstrate safety under field conditions
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	August 29, 1995